



Environmental
Protection Agency

Ted Strickland, Governor
Lee Fisher, Lt. Governor
Chris Korleski, Director

6/11/2010

Certified Mail

Mr. Scott Tatro
Marsulex, Inc. -
1400 Otter Creek Road
Oregon, OH 43616-1232

Facility ID: 0448020014
Permit Number: P0103773
County: Lucas

RE: DRAFT AIR POLLUTION TITLE V PERMIT
Permit Type: Renewal

Dear Permit Holder:

A draft of the OAC Chapter 3745-77 Title V permit for the referenced facility has been issued. The purpose of this draft is to solicit public comments. A public notice will appear in the Ohio EPA Weekly Review and the local newspaper, Toledo Blade. A copy of the public notice, the Statement of Basis, and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Issued Air Pollution Control Permits" link. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
122 South Front Street
Columbus, Ohio 43215

and Toledo Department of Environmental Services
348 South Erie Street
Toledo, OH 43604

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on processing the Title V permit will be made after consideration of comments received and oral testimony if a public hearing is conducted. You will then be provided with a Preliminary Proposed Title V permit and another opportunity to comment prior to the 45-day Proposed Title V permit submittal to U.S. EPA Region 5. The permit will be issued final after U.S. EPA review is completed and no objections to the final issuance have been received. If you have any questions, please contact Toledo Department of Environmental Services at (419)936-3015.

Sincerely,


Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA Region 5 - *Via E-Mail Notification*
TDES; Michigan; Indiana

PUBLIC NOTICE
Issuance of Draft Air Pollution Title V Permit
Marsulex, Inc. -

Issue Date: 6/11/2010
Permit Number: P0103773
Permit Type: Renewal
Permit Description: sulfuric acid plant
Facility ID: 0448020014
Facility Location: Marsulex, Inc. -
1400 Otter Creek Road,
Oregon, OH 43616-1232
Facility Description: All Other Basic Inorganic Chemical Manufacturing

Chris Korleski, Director of the Ohio Environmental Protection Agency, 50 West Town Street, Columbus Ohio, has issued a draft action of an air pollution control Title V operating permit for the facility at the location identified above on the date indicated. Comments concerning this draft action, or a request for a public meeting, must be sent in writing no later than thirty (30) days from the date this notice is published. All comments, questions, requests for permit applications or other pertinent documentation, and correspondence concerning this action must be directed to Peter Park at Toledo Department of Environmental Services, 348 South Erie Street, Toledo, OH 43604 or (419)936-3015. The permit, which includes a detailed description of the operations, and associated statement of basis for the permit requirements, can be downloaded from the Web page: www.epa.ohio.gov/dapc



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Title V Permit Statement of Basis
Permit Number: P0103773
Facility ID: 0448020014

Statement of Basis For Air Pollution Title V Permit

Facility ID:	0448020014
Facility Name:	Marsulex, Inc. -
Facility Description:	sulfuric acid plant
Facility Address:	1400 Otter Creek Road, Oregon, OH 43616-1232
Permit #:	P0103773, Renewal
This facility is subject to Title V because it is major for: <input type="checkbox"/> Lead <input checked="" type="checkbox"/> Sulfur Dioxide <input type="checkbox"/> Carbon Monoxide <input type="checkbox"/> Volatile Organic Compounds <input type="checkbox"/> Nitrogen Oxides <input type="checkbox"/> Particulate Matter ≤ 10 microns <input type="checkbox"/> Single Hazardous Air Pollutant <input type="checkbox"/> Combined Hazardous Air Pollutants <input type="checkbox"/> Maximum Available Control Technology Standard(s)	

A. Standard Terms and Conditions

Has each insignificant emissions unit been reviewed to confirm it meets the definition in OAC rule 3745-77-01 (U)?	Yes
Were there any "common control" issues associated with this facility? If yes, provide a summary of those issues and explain how the DAPC decided to resolve them.	No
Please identify the affected unit(s) and associated PTI, if applicable, along with a brief description of any changes to the permit document that qualify as a minor permit modification per OAC rule 3745-77-08(C)(1)	N/A
Please identify the affected unit(s) and associated PTI, if applicable, along with a brief description of any changes to the permit document that qualify as a significant permit modification per OAC rule 3745-77-08(C)(3)	N/A
Please identify the affected unit(s) and associated PTI, if applicable, along with a brief description of any changes to the permit document that qualify as a reopening per OAC rule 3745-77-08(D)	N/A
Please identify the affected unit(s) and associated PTI, if applicable, along with a brief description of any changes to the permit document resulting from a renewal per OAC rule 3745-77-08(E)	N/A



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Title V Permit Statement of Basis
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B. Facility-Wide Terms and Conditions

Term and Condition (paragraph)	Basis		<u>Comments</u>
	SIP (3745-)	Other	
B.2.	N	CAA 112(r)	1. This facility developed and registered a risk management plan pursuant to section 112(r) of the Act and is required to comply with the requirements of section 112(r).

C. Emissions Unit Terms and Conditions

Key:															<u>Comments</u>
EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	
		SIP (3745-)	Other												
B001 A-Plant pre-heater	1.6 lbs/hr CO		3745-31-05 (A)(3)	N	Y	Y	N	N	Y	N	Y	N	N	N	Emissions are based on AP-42 tables 1.4-1 &2, dated 7/1998 at 19 MMBtu/hr with a fuel heating value of 1000 Btu/scf OR: Use of natural gas M: Monitor type of fuel used R: Record type of fuel used Rp: Semi-annual deviation reports for use of a fuel other than natural gas ET: None required per Engineering Guide 16
B001	7.0 tons/yr CO		3745-31-05	N	N	N	N	N	N	N	N	N	N	N	M,R,Rp: Emissions are based on hourly limit at 8760 hrs/yr ET: None - Annual limit is based on hourly liimit at 8760 hrs/yr



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Title V Permit Statement of Basis
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			(A)(3)												
B001	0.95 lb/hr NOx		3745-31-05 (A)(3)	N	Y	Y	N	N	Y	N	Y	N	N	N	BAT is use of low-NOx burner Emissions are based on AP-42 tables 1.4-1 &2, dated 7/1998 at 19 MMBtu/hr with a fuel heating value of 1000 Btu/scf OR: Use of natural gas M: Monitor type of fuel used R: Record type of fuel used Rp: Semi-annual deviation reports for use of a fuel other than natural gas ET: None required per Engineering Guide 16
B001	4.2 tons/yr NOx		3745-31-05 (A)(3)	N	N	N	N	N	N	N	N	N	N	N	M,R,Rp: Emissions are based on hourly limit at 8760 hrs/yr ET: None - Annual limit is based on hourly liimit at 8760 hrs/yr
B001	0.04 lb/hr PE		3745-31-05 (A)(3)	N	N	N	N	N	N	N	N	N	N	N	M,R,Rp: None - Natural gas is presumed inherently clean ET: None required per Engineering Guide 16
B001	0.16 ton/yr PE		3745-31-05 (A)(3)	N	N	N	N	N	N	N	N	N	N	N	M,R,Rp: Emissions are based on hourly limit at 8760 hrs/yr ET: None - Annual limit is based on hourly liimit at 8760 hrs/yr
B001	0.01 lb/hr SO2		3745-31-05 (A)(3)	N	Y	Y	N	N	Y	N	Y	N	N	N	Emissions are based on AP-42 tables 1.4-1 &2, dated 7/1998 at 19 MMBtu/hr with a fuel heating value of 1000 Btu/scf OR: Use of natural gas M: Monitor type of fuel used R: Record type of fuel used Rp: Semi-annual deviation reports for use of a fuel other than natural gas ET: None required per Engineering Guide 16
B001	0.05 ton/yr SO2		3745-31-05 (A)(3)	N	N	N	N	N	N	N	N	N	N	N	M,R,Rp: Emissions are based on hourly limit at 8760 hrs/yr ET: None - Annual limit is based on hourly liimit at 8760 hrs/yr
B001	0.10 lb/hr VOC		3745-31-05 (A)(3)	N	Y	Y	N	N	Y	N	Y	N	N	N	Emissions are based on AP-42 tables 1.4-1 &2, dated 7/1998 at 19 MMBtu/hr with a fuel heating value of 1000 Btu/scf OR: Use of natural gas M: Monitor type of fuel used



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																R: Record type of fuel used Rp: Semi-annual deviation reports for use of a fuel other than natural gas ET: None required per Engineering Guide 16
B001	0.46 ton/yr VOC		3745-31-05 (A)(3)	N	N	N	N	N	N	N	N	N	N	N	N	M,R,Rp: Emissions are based on hourly limit at 8760 hrs/yr ET: None - Annual limit is based on hourly liimit at 8760 hrs/yr
B001/ B002	0.020 lb/mmBtu PE	17-10(B)		N	N	N	N	N	N	N	N	N	N	N	N	M,R,Rp: None - Natural gas is presumed inherently clean ET: None required per Engineering Guide 16
B001/ B002	20% opacity	17-07(A)		N	N	N	N	N	N	N	N	N	N	N	N	M,R,Rp: None - Natural gas is presumed inherently clean ET: None required per Engineering Guide 16
B002 B-Plant preheat er	1.4 lbs/hr CO		3745-31-05 (A)(3)	N	N	N	N	N	N	N	N	N	N	N	N	Emissions are based on AP-42 tables 1.4-1 &2, dated 7/1998 at 19 MMBtu/hr with a fuel heating value of 1000 Btu/scf OR: Use of natural gas M: Monitor type of fuel used R: Record type of fuel used Rp: Semi-annual deviation reports for use of a fuel other than natural gas ET: None required per Engineering Guide 16
B002	6.1 tons/yr CO		3745-31-05 (A)(3)	N	N	N	N	N	N	N	N	N	N	N	N	M,R,Rp: Emissions are based on hourly limit at 8760 hrs/yr ET: None - Annual limit is based on hourly liimit at 8760 hrs/yr
B002	0.83 lb/hr NOx		3745-31-05 (A)(3)	N	Y	Y	N	N	Y	N	Y	N	N	N	N	BAT is use of low-NOx burner Emissions are based on AP-42 tables 1.4-1 &2, dated 7/1998 at 19 MMBtu/hr with a fuel heating value of 1000 Btu/scf OR: Use of natural gas M: Monitor type of fuel used R: Record type of fuel used Rp: Semi-annual deviation reports for use of a fuel other than natural gas ET: None required per Engineering Guide 16
B002	3.6 tons/yr NOx		3745-31-05 (A)(3)	N	N	N	N	N	N	N	N	N	N	N	N	M,R,Rp: Emissions are based on hourly limit at 8760 hrs/yr ET: None - Annual limit is based on hourly liimit at 8760 hrs/yr



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B002	0.03 lb/hr PE		3745-31-05 (A)(3)	N	N	N	N	N	N	N	N	N	N	N	M,R,Rp: Emissions are based on hourly limit at 8760 hrs/yr ET: None - Annual limit is based on hourly liimit at 8760 hrs/yr
B002	0.14 ton/yr PE		3745-31-05 (A)(3)	N	N	N	N	N	N	N	N	N	N	N	M,R,Rp: Emissions are based on hourly limit at 8760 hrs/yr ET: None - Annual limit is based on hourly liimit at 8760 hrs/yr
B002	0.01 lb/hr SO2		3745-31-05 (A)(3)	N	Y	Y	N	N	Y	N	Y	N	N	N	Emissions are based on AP-42 tables 1.4-1 &2, dated 7/1998 at 19 MMBtu/hr with a fuel heating value of 1000 Btu/scf OR: Use of natural gas M: Monitor type of fuel used R: Record type of fuel used Rp: Semi-annual deviation reports for use of a fuel other than natural gas ET: None required per Engineering Guide 16
B002	0.04 ton/yr SO2		3745-31-05 (A)(3)	N	N	N	N	N	N	N	N	N	N	N	M,R,Rp: Emissions are based on hourly limit at 8760 hrs/yr ET: None - Annual limit is based on hourly liimit at 8760 hrs/yr
B002	0.09 lb/hr VOC		3745-31-05 (A)(3)	N	Y	Y	N	N	Y	N	Y	N	N	N	Emissions are based on AP-42 tables 1.4-1 &2, dated 7/1998 at 19 MMBtu/hr with a fuel heating value of 1000 Btu/scf OR: Use of natural gas M: Monitor type of fuel used R: Record type of fuel used Rp: Semi-annual deviation reports for use of a fuel other than natural gas ET: None required per Engineering Guide 16
B002	0.40 ton/yr VOC		3745-31-05 (A)(3)	N	N	N	N	N	N	N	N	N	N	N	M,R,Rp: Emissions are based on hourly limit at 8760 hrs/yr ET: None - Annual limit is based on hourly liimit at 8760 hrs/yr
P001	102.7 lbs/hr SO2		3745-31-05 (A)(3)	N	N	Y	N	N	Y	N	Y	N	Y	N	M: CEMS ET: Methods 1-4 & 8, test approximately 2.5 years after permit issuance and within 6 months prior to permit renewal.
P001	2465 lbs SO2/day		3745-31-05 (A)(3)	N	N	Y	N	N	Y	N	Y	N	N	N	M: CEMS ET: None - Compliance with the hourly limit constitutes compliance with the daily limit
P001	450 tons		3745-	N	N	Y	N	N	Y	N	Y	N	N	N	M: Calculation based on CEMS data



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	SO ₂ /rolling 12-month period		31-05 (A)(3)												ET: None - Calculation based on CEMS data
P001	3.60 lbs/hr sulfuric acid mist		3745-31-05 (A)(3)	N	N	Y	N	N	Y	N	Y	N	Y	N	M: CEMS for SO ₂ ET: Methods 1-4 and 8, test approximately 2.5 years after permit issuance and within 6 months prior to permit renewal.
P001	15.8 tons/yr sulfuric acid mist		3745-31-05 (A)(3)	N	N	Y	N	N	Y	N	Y	N	N	N	M: SO ₂ CEMS ET: None - Compliance with hourly limit
P001	0.82 lb/hr CO		3745-31-05 (A)(3)	N	N	N	N	N	N	N	N	N	N	N	M, R, Rp: Hourly emissions are based on the potential to emit, therefore M, R, Rp are not necessary ET: None - Not required per Engineering Guide 16
P001	3.59 tons/yr CO		3745-31-05 (A)(3)	N	N	N	N	N	N	N	N	N	N	N	M,R,Rp: Emission limit is based on the potential to emit at 8760 hrs/yr, therefore M, R and Rp are not necessary. ET: None - Limit is based on PTE
P001	3.85 lbs/hr NO _x		3745-31-05 (A)(3)	N	N	N	N	N	N	N	N	N	N	N	M,R&Rp: Emission limit is based on potential to emit, therefore M, R and Rp are not necessary ET: None - Engineering Guide 16
P001	16.5 tons/yr NO _x		3745-31-05 (A)(3)	N	N	N	N	N	N	N	N	N	N	N	M,R,Rp: None - Limit is based on PTE, therefore M,R&Rp are not necessary ET: None - Limit is based on PTE at 8760 hours per year
P001, P002	4 lbs SO ₂ /ton of H ₂ SO ₄ produced		40 CFR 60.82 (a)	N	N	Y	N	N	Y	N	Y	N	Y	N	M: SO ₂ CEMS ET: Methods 1-4 and 8, test approximately 2.5 years after permit issuance and within 6 months prior to permit renewal.
P001, P002	0.15 lb Acid Mist/ton of H ₂ SO ₄ produced		40 CFR 60.83 (a)(1)	N	N	N	N	N	N	N	N	N	Y	N	ET: Methods 1-4 and 8, test approximately 2.5 years after permit issuance and within 6 months prior to permit renewal.
P002	59.5 lbs/hr SO ₂		3745-31-05 (A)(3)	N	N	Y	N	N	Y	N	Y	N	Y	N	M: SO ₂ CEMS ET" Methods 1-4 and 8, test approximately 2.5 years after permit issuance and within 6 months prior to permit renewal.
P002	1428 lbs		3745-	N	N	Y	N	N	Y	N	Y	N	N	N	M: SO ₂ CEMS



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	SO2/day		31-05 (A)(3)												ET: None - Compliance is based on CEMS data
P002	261 tons SO2/rollin g 12- month period		3745- 31-05 (A)(3)	N	N	Y	N	N	Y	N	Y	N	N	N	M: SO2 CEMS ET: None - Compliance is demonstrated by CEMS data
P002	2.10 lbs/hr sulfuric acid mist		3745- 31-05 (A)(3)	N	N	Y	N	N	Y	N	Y	N	Y	N	M: SO2 CEMS ET: Methods 1-4 and 8, test approximately 2.5 years after permit issuance and within 6 months prior to permit renewal.
P002	9.20 tons/yr sulfuric acid mist		3745- 31-05 (A)(3)	N	N	N	N	N	N	N	N	N	N	N	M,R,Rp: None - Annual limit is based on hourly limit for 8760 hrs/yr
P002	0.82 lb/hr CO		3745- 31-05 (A)(3)	N	N	N	N	N	N	N	N	N	N	N	M, R, Rp: Hourly emissions are based on the potential to emit, therefor M, R, Rp are not necessary ET: None - Not required per Engineering Guide 16
P002	3.59 tons/yr CO		3745- 31-05 (A)(3)	N	N	N	N	N	N	N	N	N	N	N	M,R,Rp: Emission limit is based on the potential to emit at 8760 hrs/hr, therefore M, R and Rp are not necessary. ET: None - Limit is based on PTE
P002	2.42 lbs/hr NOx		3745- 31-05 (A)(3)	N	N	N	N	N	N	N	N	N	N	N	M, R, Rp: Hourly emissions are based on the potential to emit, therefor M, R, Rp are not necessary ET: None - Not required per Engineering Guide 16
P002	10.6 tons/yr NOx		3745- 31-05 (A)(3)	N	N	N	N	N	N	N	N	N	N	N	M,R,Rp: Emission limit is based on the potential to emit at 8760 hrs/hr, therefore M, R and Rp are not necessary. ET: None - Limit is based on PTE



DRAFT

**Division of Air Pollution Control
Title V Permit
for
Marsulex, Inc. -**

Facility ID: 0448020014
Permit Number: P0103773
Permit Type: Renewal
Issued: 6/11/2010
Effective: To be entered upon final issuance
Expiration: To be entered upon final issuance



Division of Air Pollution Control
Title V Permit
for
Marsulex, Inc. -

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Authorization

Facility ID: 0448020014
Facility Description: sulfuric acid plant
Application Number(s): A0035629, A0037944
Permit Number: P0103773
Permit Description: sulfuric acid plant
Permit Type: Renewal
Issue Date: 6/11/2010
Effective Date: To be entered upon final issuance
Expiration Date: To be entered upon final issuance
Superseded Permit Number:

This document constitutes issuance of an OAC Chapter 3745-77 Title V permit to:

Marsulex, Inc. -
1400 Otter Creek Road
Oregon, OH 43616-1232

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Toledo Department of Environmental Services
348 South Erie Street
Toledo, OH 43604
(419)936-3015

The above named entity is hereby granted a Title V permit pursuant to Chapter 3745-77 of the Ohio Administrative Code. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. You will be sent a notice approximately 18 months prior to the expiration date regarding the renewal of this permit. If you do not receive a notice, please contact the Toledo Department of Environmental Services. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, if a timely renewal application is submitted. A renewal application will be considered timely if it is submitted no earlier than 18 months (540 days) and no later than 6 months (180 days) prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski
Director



A. Standard Terms and Conditions



1. Federally Enforceable Standard Terms and Conditions

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
- (1) Standard Term and Condition A. 24., Reporting Requirements Related to Monitoring and Record Keeping Requirements of State-Only Enforceable Permit Terms and Conditions
 - (2) Standard Term and Condition A. 25., Records Retention Requirements for State-Only Enforceable Permit Terms and Conditions
 - (3) Standard Term and Condition A. 27., Scheduled Maintenance/Malfunction Reporting
 - (4) Standard Term and Condition A. 29., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(Authority for term: ORC 3704.036(A))

2. Monitoring and Related Record Keeping and Reporting Requirements

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit), the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
- (1) The date, place (as defined in the permit), and time of sampling or measurements.
 - (2) The date(s) analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of such analyses.
 - (6) The operating conditions existing at the time of sampling or measurement.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))

- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))

- c) The permittee shall submit required reports in the following manner:

- (1) All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:

Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year in accordance with Standard Term and Condition A.2.c)(2) below; and each report shall cover the previous calendar quarter. An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the owner or operator of the affected air contaminant source or air pollution control equipment complies with the requirements of OAC rule 3745-17-07(A)(3)(c).

In accordance with OAC rule 3745-15-06, a malfunction reportable under OAC rule 3745-15-06(B) is a deviation of the federally enforceable permit requirements. Even though verbal notifications and written reports are required for malfunctions pursuant to OAC rule 3745-15-06, the written reports required pursuant to this term must be submitted quarterly to satisfy the prompt reporting provision of OAC rule 3745-77-07(A)(3)(c).

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any scheduled maintenance, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

- (2) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit or, in some cases, in section B. Facility-Wide Terms and Conditions of this Title V permit), all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as provided below, the written reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

In identifying each deviation, the permittee shall specify the emission limitation(s), operational restriction(s), and/or control device operating parameter limitation(s) for which the deviation occurred, describe each deviation, and provide the estimated magnitude and duration of each deviation.

These written deviation reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. Full compliance with OAC rule 3745-77-07(A)(3)(c) requires reporting of all other deviations of the federally enforceable requirements specified in the permit as required by such rule.

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement satisfies the reporting requirements specified in this Standard Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement will also satisfy (for the deviations so reported) the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations, and additional quarterly deviation reports for that specific emission limitation, operational restriction, or control device parameter limitation are not required pursuant to this Standard Term and Condition.

See A.29 below if no deviations occurred during the quarter.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

- (3) All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with Standard Term and Condition A.2)c)(2) above shall be submitted in the following manner:

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; Standard Terms and Conditions: A.3, A.4, A.5, A.7.e), A.8, A.13, A.15, A.19, A.20, A.21, and A.23 of this Title V permit, as well as any deviations from the requirements in section C. Emissions Unit Terms and Conditions of this Title V permit, and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with Standard Term and Condition A.2.c)(2) above shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency by January 31 and July 31 of each year; and each report shall cover the previous six calendar months. Unless otherwise specified by rule, all other deviations from federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally enforceable requirements not specifically addressed by permit or rule for the insignificant activities or emissions levels (IEU) identified in section B. Facility-Wide Terms and Conditions of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

In identifying each deviation, the permittee shall specify the federally enforceable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation.

These semi-annual and annual written reports shall satisfy the reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with Standard Term and Condition A.2.c)(2) above.

If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such deviations occurred during that period.

Effective Date: To be entered upon final issuance

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii) and OAC rule 3745-77-07(A)(13)(b))

- (4) Each written report shall be signed by a responsible official certifying that, "based on information and belief formed after reasonable inquiry, the statements and information in the report (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."

(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

- (5) Reports of any required monitoring and/or record keeping information shall be submitted to Toledo Department of Environmental Services.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

3. Scheduled Maintenance

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in Standard Term and Condition A.2.c)(1) above.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

4. Risk Management Plans

If applicable, the permittee shall develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq. ("Act"); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

- a) a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or
- b) as part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

(Authority for term: OAC rule 3745-77-07(A)(4))

5. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

(Authority for term: OAC rule 3745-77-07(A)(5))

6. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

(Authority for term: OAC rule 3745-77-07(A)(6))

7. General Requirements

- a) The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c) This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with Standard Term and Condition A.11 below. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.
- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.
- f) Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable when:
 - (1) the permittee submits an approved facility-wide potential to emit analysis supporting a claim that the facility no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on the permanent shutdown and removal of one or more emissions units identified in this permit; or
 - (2) the permittee no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable ; or
 - (3) a combination of (1) and (2) above.

The permittee shall continue to comply with all applicable OAC Chapter 3745-31 requirements for all regulated air contaminant sources once this permit ceases to be enforceable. The permittee shall comply with any residual requirements, such as quarterly deviation reports, semi-annual deviation reports, and annual compliance certifications covering the period during which this Title V permit was enforceable. All records relating to this permit must be maintained in accordance with law.

(Authority for term: OAC rule 3745-77-01(W), OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77(A)(7))

8. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78.

(Authority for term: OAC rule 3745-77-07(A)(8))

9. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

(Authority for term: OAC rule 3745-77-07(A)(9))

10. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these standard terms and conditions shall apply to all operating scenarios authorized in this permit.

(Authority for term: OAC rule 3745-77-07(A)(10))

11. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

- a) Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.
- b) This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.
- c) The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.

- d) The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))

12. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

(Authority for term: OAC rule 3745-77-07(B))

13. Compliance Requirements

- a) Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
- (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c) The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
- (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

- d) Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:
- (1) Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted (i.e., postmarked) on or before April 30th of each year during the permit term.
 - (2) Compliance certifications shall include the following:
 - a. An identification of each term or condition of this permit that is the basis of the certification.
 - b. The permittee's current compliance status.
 - c. Whether compliance was continuous or intermittent.
 - d. The method(s) used for determining the compliance status of the source currently and over the required reporting period.
 - e. Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
 - (3) Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))

14. Permit Shield

- a) Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.
- b) This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

(Authority for term: OAC rule 3745-77-07(F))

15. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with,

or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

(Authority for term: OAC rules 3745-77-07(H)(1) and (2))

16. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

(Authority for term: OAC rule 3745-77-07(G))

17. Off-Permit Changes

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

- a) The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.
- b) The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as insignificant emissions levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.
- c) The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).
- d) The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.
- e) The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit-to-install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(Authority for term: OAC rule 3745-77-07(I))

18. Compliance Method Requirements

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by

law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.
(This term is provided for informational purposes only.)

19. Insignificant Activities or Emissions Levels

Each IEU that has one or more applicable requirements shall comply with those applicable requirements.
(Authority for term: OAC rule 3745-77-07(A)(1))

20. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.
(Authority for term: OAC rule 3745-77-07(A)(1))

21. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.
(Authority for term: OAC rule 3745-77-07(A)(1))

22. Permanent Shutdown of an Emissions Unit

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification from the responsible official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the responsible official that the emissions unit was permanently shut down.

After the date on which an emissions unit is permanently shut down (i.e., that has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31 and therefore ceases to meet the definition of an "emissions unit" as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any Title V permit requirements applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

No emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.
(Authority for term: OAC rule 3745-77-01)

23. Title VI Provisions

If applicable, the permittee shall comply with the standards for recycling and reducing emissions of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:



- a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 CFR 82.156.
- b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment specified in 40 CFR 82.158.
- c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

(Authority for term: OAC rule 3745-77-01(H)(11))

24. Reporting Requirements Related to Monitoring and Record Keeping Requirements Under State Law Only

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

25. Records Retention Requirements Under State Law Only

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

26. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine



whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

(Authority for term: OAC rule 3745-77-07(C))

27. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

28. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

(Authority for term: OAC rule 3745-77-01(C))

29. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

The permittee is not required to submit a quarterly report which states that no deviations occurred during that quarter for the following situations:

- a) where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in Standard Term and Condition A.2.c)(2); or
- b) where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potentials to emit; or
- c) where the company's responsible official has certified that an emissions unit has been permanently shut down.

B. Facility-Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

a) 4.

2. This facility developed and registered a risk management plan pursuant to section 112(r) of the Act and is required to comply with the requirements of section 112(r)

3. The following insignificant emissions units are located at this facility:

T001 - Tank 200 Spent Acid Storage (PTI 04-819);
T002 - Tank 196 Spent Acid Storage (PTI 04-1022);
T003 - Tank 198 Spent Acid Storage (PTI 04-1022);
T004 - Tank 202 Spent Acid Storage (PTI 04-01164); and
T005 - Tank 204 Spent Acid Storage (PTI 04-01164).

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emission limitations and/or control requirements contained within the identified permit to install for the emissions unit. Insignificant emissions units listed above that are not subject to specific permit to install requirements are subject to one or more applicable requirements contained in the SIP-approved versions of OAC Chapters 3745-17, 3745-18, and 3745-21.

[Authority for term: OAC rule 3745-77-07(A)(13)]

4. The following insignificant emissions units located at this facility are exempt from permit requirements because they are not subject to any applicable requirements or because they meet the "de minimis" criteria established in OAC rule 3745-15-05:

Z022 - gasoline storage tank (OAC rule 3745-15-05);
Z029 - Tank 217 Off-spec H₂SO₄ storage (OAC rule 3745-15-05);
Z030 - Tank 206 H₂SO₄ Storage (OAC rule 3745-15-05);
Z031 - Tank 208 H₂SO₄ Storage (OAC rule 3745-15-05);
Z032 - Tank 209 Spent Acid Storage (OAC rule 3745-15-05);
Z033 - Tank 211 H₂SO₄ Storage (OAC rule 3745-15-05);
Z034 - Tank 212 Oleum Storage (OAC rule 3745-15-05);
Z035 - Tank 213 H₂SO₄ Storage (OAC rule 3745-15-05);
Z037 - Tank 215 H₂SO₄ Storage (OAC rule 3745-15-05);
Z038 - Tank 216 Fuel Oil Storage (OAC rule 3745-15-05);
Z039 - Tank 666 Fuel Oil Storage (OAC rule 3745-15-05);
Z040 - Sulfur Tank (OAC rule 3745-15-05);
Z041 - Sulfur Pit (OAC rule 3745-15-05);
Z042 - Tank 220 Dilute Caustic Storage (no applicable requirements);
Z043 - Tank 250 Caustic Storage (no applicable requirements);
Z044 - Building heaters (OAC rule 3745-15-05); and
Z045 Cooling Towers (OAC rule 3745-15-05).

C. Emissions Unit Terms and Conditions



1. B001, A-Plant Preheater

Operations, Property and/or Equipment Description: 19 million Btu/hr natural gas-fired heater

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-1166 issued June 3, 1999)	Carbon monoxide (CO) shall not exceed 1.6 pounds per hour (lbs/hr) and 7.0 tons per year (tpy). Nitrogen oxides (NOx) shall not exceed 0.95 pound per hour (lb/hr) and 4.2 tons per year (tpy). Particulate emissions shall not exceed 0.04 pound per hour (lb/hr) and 0.16 ton per year (tpy). Sulfur dioxide (SO ₂) shall not exceed 0.01 pound per hour (lb/hr) and 0.05 ton per year (tpy). Volatile organic compounds (VOC) shall not exceed 0.10 pound per hour (lb/hr) and 0.46 ton per year (tpy). The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).
b.	OAC rule 3745-17-10(B)	See b)(2)a.
c.	OAC rule 3745-17-07(A)	Visible particulate emissions, from any stack, shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
d.	OAC rule 3745-18-06(A)	See b)(2)b.

- (2) Additional Terms and Conditions
- a. The particulate emission limitation established by this applicable rule is less stringent than the particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
 - b. OAC rule 3745-18-06 does not establish an SO₂ emission limitation for this fuel burning equipment because this emissions unit only employs natural gas as fuel.
- c) Operational Restrictions
- (1) The permittee shall burn only natural gas as fuel in this emissions unit.
[Authority for term: OAC rule 3745-77-07(A)(1)]
- d) Monitoring and/or Recordkeeping Requirements
- (1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
[Authority for term: OAC rule 3745-77-07(C)(1)]
- e) Reporting Requirements
- (1) The reports contained in this permit shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.
[Authority for term: OAC rule 3745-77-07(C)(1)]
- f) Testing Requirements
- (1) Compliance with the emission limitations in b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation:
20% opacity as a 6-minute average

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance based upon performance testing in accordance with the methods and procedures specified in Method 9 of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1)]
 - b. Emission Limitation:
1.6 lbs/hr of CO

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance through performance testing in accordance with the methods and procedures provided in Methods 1 through 4 and Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

7.0 tpy of CO

Applicable Compliance Method:

The annual emission limitation is the potential to emit and is based on the maximum fuel usage of 0.019 million cubic feet per hour multiplied by the AP-42 emission factor of 84 pounds of CO per million cubic feet of natural gas burned and by 8760 hours per year, and divided by 2000 lbs/ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

0.95 lb/hr of NO_x

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance through performance testing in accordance with the methods and procedures provided in Methods 1 through 4 and Method 7 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:

4.2 tpy of NO_x

Applicable Compliance Method:

The annual emission limitation is the potential to emit and is based on the maximum fuel usage of 0.019 million cubic feet per hour multiplied by the AP-42 emission factor of 50 pounds of NO_x per million cubic feet of natural gas burned and by 8760 hours per year, and divided by 2000 lbs/ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f. Emission Limitation:

0.04 lb/hr of particulate emissions

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance through performance testing in accordance with the methods and procedures provided in Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g. Emission Limitation:

0.16 tpy of particulate emissions

Applicable Compliance Method:

The annual emission limitation is the potential to emit and is based on the maximum fuel usage of 0.019 million cubic feet per hour multiplied by the AP-42 emission factor of 1.9 pounds of particulates per million cubic feet of natural gas burned and by 8760 hours per year, and divided by 2000 lbs/ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

h. Emission Limitation:

0.01 lb/hr of SO₂

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance through performance testing in accordance with the methods and procedures provided in Methods 1 through 4 and Method 6 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

i. Emission Limitation:

0.05 tpy of SO₂

Applicable Compliance Method:

The annual emission limitation is the potential to emit and is based on the maximum fuel usage of 0.019 million cubic feet per hour multiplied by the AP-42 emission factor of 0.6 pound of SO₂ per million cubic feet of natural gas burned and by 8760 hours per year, and divided by 2000 lbs/ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

j. Emission Limitation:

0.10 lb/hr of VOC

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance through performance testing in accordance with the methods and procedures provided in Methods 1 through 4 and Method 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

k. Emission Limitation:

0.46 tpy of VOC

Applicable Compliance Method:

The annual emission limitation is the potential to emit and is based on the maximum fuel usage of 0.019 million cubic feet per hour multiplied by the AP-42 emission factor of 5.5 pounds of VOC per million cubic feet of natural gas burned and by 8760 hours per year, and divided by 2000 lbs/ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.



2. B002, B-Plant Preheater

Operations, Property and/or Equipment Description: 16.5 million Btu/hr natural gas-fired heater

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-1166 issued June 3, 1999)	Carbon monoxide (CO) shall not exceed 1.4 pounds per hour (lbs/hr) and 6.1 tons per year (tpy). Nitrogen oxides (NOx) shall not exceed 0.83 pound per hour (lb/hr) and 3.6 tons per year (tpy). Particulate emissions shall not exceed 0.03 pound per hour (lb/hr) and 0.14 ton per year (tpy). Sulfur dioxide (SO ₂) shall not exceed 0.01 pound per hour (lb/hr) and 0.04 ton per year (tpy). Volatile organic compounds (VOC) shall not exceed 0.09 pound per hour (lb/hr) and 0.40 ton per year (tpy). The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) .
b.	OAC rule 3745-17-10(B)	See b)(2)a.
c.	OAC rule 3745-17-07(A)	Visible particulate emissions, from any stack, shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
d.	OAC rule 3745-18-06(A)	See b)(2)b.

(2) Additional Terms and Conditions

- a. The particulate emission limitation established by this applicable rule is less stringent than the particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
 - b. OAC rule 3745-18-06 does not establish an SO₂ emission limitation for this fuel burning equipment because this emissions unit only employs natural gas as fuel.
- c) **Operational Restrictions**
- (1) The permittee shall burn only natural gas as fuel in this emissions unit.
[Authority for term: OAC 3745-77-07(A)(1)]
- d) **Monitoring and/or Recordkeeping Requirements**
- (1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
[Authority for term: OAC 3745-77-07(C)(1)]
- e) **Reporting Requirements**
- (1) The permittee shall submit semi-annual deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted by January 30 and July 30 of each year and shall cover the previous 6 calendar months of operation.
[Authority for term: OAC 3745-77-07(C)(1)]
- f) **Testing Requirements**
- (1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:
 - a. **Emission Limitation:**
20% opacity as a 6-minute average

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance based upon performance testing in accordance with the methods and procedures specified in Method 9 of 40 CFR Part 60, Appendix A.

[Authority for term: OAC 3745-77-07(C)(1)]
 - b. **Emission Limitation:**
1.4 lbs/hr of CO

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance through performance testing in accordance with the methods and procedures provided in Methods 1 through 4 and Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

[Authority for term: OAC 3745-77-07(C)(1)]

c. Emission Limitation:

6.1 tpy of CO

Applicable Compliance Method:

The annual emission limitation is the potential to emit and is based on the maximum fuel usage of 0.0165 million cubic feet per hour multiplied by the AP-42 emission factor of 84 pounds of CO per million cubic feet of natural gas burned and by 8760 hours per year, and divided by 2000 lbs/ton.

[Authority for term: OAC 3745-77-07(C)(1)]

d. Emission Limitation:

0.83 lb/hr of NOx

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance through performance testing in accordance with the methods and procedures provided in Methods 1 through 4 and Method 7 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

[Authority for term: OAC 3745-77-07(C)(1)]

e. Emission Limitation:

3.6 tpy of NOx

Applicable Compliance Method:

The annual emission limitation is the potential to emit and is based on the maximum fuel usage of 0.0165 million cubic feet per hour multiplied by the AP-42 emission factor of 50 pounds of NOx per million cubic feet of natural gas burned and by 8760 hours per year, and divided by 2000 lbs/ton.

[Authority for term: OAC 3745-77-07(C)(1)]

f. Emission Limitation:

0.03 lb/hr of particulate emissions

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance through performance testing in accordance with the methods and procedures provided in Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

[Authority for term: OAC 3745-77-07(C)(1)]

g. Emission Limitation:

0.14 tpy of particulate emissions

Applicable Compliance Method:

The annual emission limitation is the potential to emit and is based on the maximum fuel usage of 0.0165 million cubic feet per hour multiplied by the AP-42 emission factor of 1.9 pounds of particulates per million cubic feet of natural gas burned and by 8760 hours per year, and divided by 2000 lbs/ton.

[Authority for term: OAC 3745-77-07(C)(1)]

h. Emission Limitation:

0.01 lb/hr of SO₂

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance through performance testing in accordance with the methods and procedures provided in Methods 1 through 4 and Method 6 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

[Authority for term: OAC 3745-77-07(C)(1)]

i. Emission Limitation:

0.04 tpy of SO₂

Applicable Compliance Method:

The annual emission limitation is the potential to emit and is based on the maximum fuel usage of 0.0165 million cubic feet per hour multiplied by the AP-42 emission factor of 0.6 pound of SO₂ per million cubic feet of natural gas burned and by 8760 hours per year, and divided by 2000 lbs/ton.

[Authority for term: OAC 3745-77-07(C)(1)]

j. Emission Limitation:

0.09 lb/hr of VOC



Applicable Compliance Method:

If required, the permittee shall demonstrate compliance through performance testing in accordance with the methods and procedures provided in Methods 1 through 4 and Method 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

[Authority for term: OAC 3745-77-07(C)(1)]

k. Emission Limitation:

0.40 tpy of VOC

Applicable Compliance Method:

The annual emission limitation is the potential to emit and is based on the maximum fuel usage of 0.0165 million cubic feet per hour multiplied by the AP-42 emission factor of 5.5 pounds of VOC per million cubic feet of natural gas burned and by 8760 hours per year, and divided by 2000 lbs/ton.

[Authority for term: OAC 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.



3. P001, A-Plant

Operations, Property and/or Equipment Description: Sulfuric Acid regeneration

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-00923 modified November 20, 2001)	Sulfur dioxide (SO ₂) shall not exceed 102.7 lbs/hr, 2,465 lbs/day, and 450 tons per rolling, 365-day period. Sulfuric acid mist shall not exceed 3.60 lbs/hr and 15.8 tpy. Carbon monoxide (CO) shall not exceed 0.82 lb/hr and 3.59 tpy. Nitrogen oxides (NO _x) shall not exceed 3.85 lbs/hr and 16.5 tpy. See b)(2)b.
b.	OAC rule 3745-18-54(X)	See b)(2)a.
c.	40 CFR Part 60, Subpart H	See b)(2)c.
d.	OAC rule 3745-17-07(A)	See b)(2)a.
e.	OAC rule 3745-17-11	See b)(2)d.

(2) Additional Terms and Conditions

a. The emission limitation specified by this rule is less stringent than the emission limitation specified by 40 CFR Part 60, Subpart H.

b. The hourly and annual emission limitations for CO and NO_x are based on the potential to emit for this emissions unit at maximum capacity for 8,760 hours per year; therefore, monitoring, record keeping and reporting are not necessary to demonstrate compliance with these limits.

c. [40 CFR 60.8(c), 60.11(c), 60.82, and 60.83]

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At all times except for periods of startup, shutdown, and malfunction, the permittee shall not cause to be discharged into the atmosphere any gases which:

- i. contain sulfur dioxide in excess of 2 kg per metric ton of acid produced (4 lb per ton), the production being expressed as 100 percent H₂SO₄;
- ii. contain acid mist, expressed as H₂SO₄, in excess of 0.075 kg per metric ton of acid produced (0.15 lb/ton), the production being expressed as 100 percent H₂SO₄; and
- iii. exhibit 10 percent opacity or greater.

[40 CFR 60.8(c)]

Emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction shall not be considered a violation of the applicable emission limit.

[40 CFR 60.11(d)]

At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any affected emissions unit including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used shall be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

- d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). Particulate emissions from this emissions unit are emitted in the form of sulfuric acid mist.
- e. The following definitions shall apply to the terms and conditions of this emissions unit.
 - i. "Startup" means the setting in operation of the unit and associated equipment for any purpose.

[40 CFR 60.2]

Startup of the dry side ends when converters reach and maintain for a period of six continuous hours normal operating temperatures, defined as a minimum of 780°F into the first and third catalyst beds. Startup of the wet side begins when sulfur bearing feeds are introduced to the regen furnace, and ends twelve hours thereafter.

[Authority for term: OAC 3745-77-07(C)(1)]

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- ii. "Shutdown" means the cessation of operation of the unit and associated equipment for any purpose.

[40 CFR 60.2]

Shutdown of the dry side begins when sulfur feed is taken off the sulfur furnace and sulfur bearing feeds exclusive of fuel oil are taken off the regen furnace. Shutdown of the wet side begins when sulfur bearing feeds exclusive of fuel oil are taken off the regen furnace and ends six hours thereafter.

[Authority for term: OAC 3745-77-07(C)(1)]

- iii. "Malfunction" means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused by poor maintenance or careless operation are not malfunctions.

[40 CFR 60.2]

- iv. "Dry side" means that portion of the unit that includes all processing equipment beginning with the drying tower and continuing through the stack.

[Authority for term: OAC 3745-77-07(C)(1)]

- v. "Wet side" means that portion of the unit that includes all processing equipment preceding the drying tower.

[Authority for term: OAC 3745-77-07(C)(1)]

c) Operational Restrictions

- (1) None .

d) Monitoring and/or Recordkeeping Requirements

- (1) A flow monitor shall be maintained and operated for this emissions unit to allow for monitoring SO₂ emissions in units of pounds per hour, pounds per day, and tons per year. This continuous flow monitoring equipment shall comply with the requirements specified in 40 CFR Part 60.

[Authority for term: OAC 3745-77-07(C)(1)]

- (2) The continuous emission monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

[40 CFR 60.2] and/or [40 CFR 63.2] and [Appendix F to 40 CFR Part 60]

[Authority for term: OAC 3745-77-07(C)(1)]

(3) [40 CFR 60.84(a)]

The continuous monitoring system shall also include a flow monitor as required by PTI 04-00923. The combination of the SO₂ continuous monitoring system and flow monitor will be identified in this permit as the SO₂ Continuous Emission Rate Monitoring System (CERMS). The CERMS shall monitor SO₂ emissions in units of pounds per ton of 100% acid produced, pounds per hour, pounds per day, and tons per rolling, 365-day period.

[Authority for term: OAC 3745-77-07(C)(1)]

(4) The permittee shall operate and maintain the SO₂ CERMS to continuously monitor and record SO₂ emissions from this emissions unit in units of the applicable standard(s): pounds per ton of 100% acid produced as a rolling, 3-hour average, pounds per hour as a 3-hour average, pounds per day, and tons per rolling, 365-day period.

The permittee shall maintain records of all data obtained by the SO₂ CERMS including, but not limited to:

- a. emissions of SO₂ in parts per million SO₂ on an instantaneous (1-minute) basis;
- b. emissions of SO₂ in units of the applicable standard in the appropriate averaging period (pounds per ton of 100% acid produced as a rolling 3-hour average, pounds per hour as a 3-hour average, pounds per day, and tons per rolling, 365-day period);
- c. results of quarterly cylinder gas audits;
- d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
- e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);
- f. hours of operation of the emissions unit, continuous SO₂ monitoring system, and control equipment;
- g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous SO₂ monitoring system;
- h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous SO₂ monitoring system; as well as,
- i. the reason (if known) and the corrective actions taken (if any) for each such event in (g) and (h).

[40 CFR 60.13] and [40 CFR Part 60, Appendices B & F]

j. [40 CFR 60.84(a)]

The pollutant gas used to prepare calibration gas mixtures under Performance Specification 2 and for calibration checks under 40 CFR 60.13(d), shall be SO₂.

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Method 8 shall be used for conducting monitoring system performance evaluations under 40 CFR 60.13(c) except that only the SO₂ portion of the Method 8 results shall be used. The span value shall be set at 1000 ppm of SO₂.

k. [40 CFR 60.84(b)]

The permittee shall establish a conversion factor for the purpose of converting monitoring data into units of pounds per ton. The conversion factor shall be determined, as a minimum, three times daily by measuring the concentration of SO₂ entering the converter using suitable methods (e.g., the Reich test, National Air Pollution Control Administration Publication No. 999-AP-13) and calculating the appropriate conversion factor for each 8-hour period as follows:

$$CF = k[(1.000-0.015r)/(r-s)]$$

where:

CF = conversion factor (kg/ton per ppm, lb/ton per ppm);

k = constant derived from material balance (for determining CF in metric units, k = 0.0653, for determining CF in English units, k = 0.1306);

r = percentage of SO₂ by volume entering the gas converter (appropriate corrections must be made for air injection plants subject to the Administrator of U.S. EPA's approval); and

s = percentage of SO₂ by volume in the emissions to the atmosphere determined by the CERMS.

l. [40 CFR 60.84(c)]

The permittee shall record all conversion factors and values under d)(4)k. from which they were computed (i.e., CF, r, and s).

m. [40 CFR 60.84(d)]

Alternatively, a source that processes elemental sulfur or an ore that contains elemental sulfur and uses air to supply oxygen may use the following continuous emission monitoring approach and calculation procedures in determining SO₂ emission rates in terms of the standard. This procedure is not required, but is an alternative that would alleviate problems encountered in the measurement of gas velocities or production rate. Continuous emission monitoring systems for measuring SO₂, O₂, and CO₂ (if required) and flow rate (required by PTI 04-00923) shall be installed, calibrated, maintained, and operated by the permittee and subjected to the certification procedures in Performance Specifications 6. The calibration procedure and span value for the SO₂ monitor shall be as specified in d)(4)j. The span value for CO₂ (if required) shall be 10 percent and for O₂ shall be 20.9 percent (air). A conversion factor based on process rate data is not necessary. Calculate the SO₂ emission rate as follows:

$$Es = (CsS) / [0.265-(0.126\%O_2)-(A \%CO_2)]$$

where:

Es = emission rate of SO₂, kg/metric ton (lb/ton) of 100 percent of H₂SO₄ produced;

Cs = concentration of SO₂, kg/dscm (lb/dscf);

S = acid production rate factor, 368 dscm/metric ton (11,800 dscf/ton) of 100 percent H₂SO₄ produced;

%O₂ = oxygen concentration, percent dry basis;

A = auxiliary fuel factor, as follows;

A = 0.00 for no fuel;

A = 0.0226 for methane;

A = 0.0217 for natural gas;

A = 0.0196 for propane;

A = 0.0172 for No. 2 oil;

A = 0.0161 for No. 6 oil;

A = 0.0148 for coal;

A = 0.0126 for coke; and

%CO₂ = carbon dioxide concentration, percent dry basis.

NOTE: It is necessary in some cases to convert measured concentration units to other units for these calculations:

Use the following table for such conversions:

From	To	Multiply by
g/scm	kg/scm	0.001
mg/scm	kg/scm	0.000001
ppm(SO ₂)	kg/scm	0.00000266
ppm(SO ₂)	lb/scf	0.000000166

[Authority for term: OAC 3745-77-07(C)(1)]

- (5) The permittee shall maintain on-site, the document(s) of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous SO₂ monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 2 and 6. The letter(s)/document(s) of

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certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.

[40 CFR 60.13] and [40 CFR Part 60, Appendix B]

- (6) The permittee shall maintain a written quality assurance/quality control plan for the continuous SO₂ monitoring system which meets the requirements of 40 CFR Part 60.13 and has been certified by the U.S. EPA or the Ohio EPA, Central Office, designed to ensure continuous valid and representative readings of SO₂ emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous SO₂ monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

[40 CFR 60.13] and [40 CFR Part 60, Appendix F]

[Authority for term: OAC 3745-77-07(C)(1)]

- (7) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.

[Authority for term: OAC 3745-77-07(C)(1)]

- (8) [40 CFR 60.7(b)]

The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the affected emissions unit, any malfunction

of the air pollution control equipment, or any periods during which a continuous monitoring system or monitoring device is inoperative.

[Authority for term: OAC 3745-77-07(C)(1)]

e) Reporting Requirements

- (1) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous SO₂ monitoring system:
 - a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR Parts 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of SO₂ emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapter 3745-18, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).
 - b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:
 - i. the facility name and address;
 - ii. the manufacturer and model number of the continuous SO₂ and other associated monitors;
 - iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;
 - iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;
 - v. the total SO₂ emissions for the calendar quarter (tons);
 - vi. the total operating time (hours) of the emissions unit;
 - vii. the total operating time of the continuous SO₂ monitoring system while the emissions unit was in operation;
 - viii. results and dates of quarterly cylinder gas audits;
 - ix. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

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- x. unless previously submitted, the results of any relative accuracy test audit showing the continuous SO₂ monitor out-of-control and the compliant results following any corrective actions;
- xi. the date, time, and duration of any/each malfunction** of the continuous SO₂ monitoring system, emissions unit, and/or control equipment;
- xii. the date, time, and duration of any downtime** of the continuous SO₂ monitoring system and/or control equipment while the emissions unit was in operation; and
- xiii. the reason (if known) and the corrective actions taken (if any) for each event in (b)(xi) and (xii).

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

** each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit

[40 CFR 60.7]

[Authority for term: OAC 3745-77-07(C)(1)]

- (2) The permittee shall submit quarterly Data Assessment Reports to the TDOES containing the information outlined in Section 7 of 40 CFR Part 60, Appendix F. These reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.

[Authority for term: OAC 3745-77-07(C)(1)]

- (3) The permittee shall submit quarterly written reports that:
 - a. identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
 - b. describe any corrective actions taken to eliminate the visible particulate emissions.

These reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.

[Authority for term: OAC 3745-77-07(C)(1)]

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emission Limitation:

102.7 lbs/hr of SO₂

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring and record keeping requirements specified in d). Performance testing on September 2, 2008 using Methods 1 through 4 and 8 of 40 CFR Part 60, Appendix A resulted in an emission rate of 96.02 lbs/hr of SO₂. If required, compliance shall be demonstrated by Methods 1 through 4 and Method 8 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

b. [Authority for term: OAC 3745-77-07(C)(1)Emission Limitation:

2,465 lbs/day of SO₂

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring and record keeping requirements specified in d).

[Authority for term: OAC 3745-77-07(C)(1)

c. Emission Limitation:

450 tons of SO₂ per rolling, 365-day period

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring and record keeping requirements specified in d).

[Authority for term: OAC 3745-77-07(C)(1)

d. Emission Limitation:

3.60 lbs/hr of sulfuric acid mist

Applicable Compliance Method:

Performance testing on April 9, 2009 using Methods 1 through 4 and Method 8 of 40 CFR Part 60, Appendix A resulted in emissions of 2.59 lbs/hr of sulfuric acid mist. If required, compliance shall be demonstrated by Methods 1 through 4 and Method 8 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

[Authority for term: OAC 3745-77-07(C)(1)

e. Emission Limitation:

15.8 tpy of sulfuric acid mist

Applicable Compliance Method:

The annual sulfuric acid mist emission limitation was developed by multiplying the hourly allowable emission limitation of 3.60 lbs/hr by a maximum operating schedule of 8760 hours/year, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

[Authority for term: OAC 3745-77-07(C)(1)]

f. Emission Limitation:

4 pounds of SO₂ per ton of 100% sulfuric acid produced

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing methods and procedures specified in f)(2).

[Authority for term: OAC 3745-77-07(C)(1)]

g. Emission Limitation:

0.82 lb/hr of CO

Applicable Compliance Method:

If required, compliance shall be demonstrated by Methods 1 through 4 and Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

[Authority for term: OAC 3745-77-07(C)(1)]

h. Emission Limitation:

3.59 tpy of CO

Applicable Compliance Method:

The annual CO emission limitation was developed by multiplying the hourly allowable emission limitation of 0.82 lb/hr by a maximum operating schedule of 8760 hours/year, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

[Authority for term: OAC 3745-77-07(C)(1)]

i. Emission Limitation:

3.85 lbs/hr of NO_x

Applicable Compliance Method:

If required, compliance shall be demonstrated by Methods 1 through 4 and Method 7 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

[Authority for term: OAC 3745-77-07(C)(1)]

j. Emission Limitation:

16.5 tpy of NO_x

Applicable Compliance Method:

The annual NO_x emission limitation was developed by multiplying the hourly allowable emission limitation of 3.85 lbs/hr by a maximum operating schedule of 8760 hours/year, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

[Authority for term: OAC 3745-77-07(C)(1)]

k. Emission Limitation:

0.075 kg per metric ton of 100 percent sulfuric acid produced (0.15 lb per ton)

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing methods and procedures specified in f)(2).

[Authority for term: OAC 3745-77-07(C)(1)]

l. Emission Limitation:

10 percent opacity

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing methods and procedures specified in f)(2) and the procedures of 40 CFR 60.11.

[Authority for term: OAC 3745-77-07(C)(1)]

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. The emission testing shall be conducted approximately 2.5 years after permit issuance and within 6 months prior to permit renewal.

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- b. The emission testing shall be conducted to demonstrate compliance with the opacity restriction, and the allowable hourly and pound per ton mass emission rates for SO₂ and sulfuric acid mist.
- c. The following test methods shall be employed to demonstrate compliance with the allowable emission rates: for opacity, Method 9 of 40 CFR Part 60, Appendix A; and for SO₂ and sulfuric acid mist, Methods 1 through 4 and Method 8 and the procedures identified under 40 CFR 60.85 as specified below. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the TDOES.
- e. [40 CFR 60.85(a)]

In conducting the performance tests required in 40 CFR 60.8, the permittee shall use as reference methods and procedures the test methods in Appendix A of 40 CFR Part 60 or other methods and procedures as specified in 40 CFR 60.85, except as provided in 40 CFR 60.8(b). Acceptable alternative methods and procedures are given in g.

- f. [40 CFR 60.85(b)]

The permittee shall determine compliance with the SO₂, acid mist, and visible emission standards in 40 CFR 40 CFR 60.82 and 60.83 as follows:

- i. [40 CFR 60.85(b)(1)]

The emission rate (E) of acid mist or SO₂ shall be computed for each run using the following equation:

$$E = (CQsd) / (PK)$$

where:

E = emission rate of acid mist or SO₂ kg/metric ton (lb/ton) of 100 percent H₂SO₄ produced;

C = concentration of acid mist or SO₂, g/dscm (lb/dscf);

Qsd = volumetric flow rate of the effluent gas, dscm/hr (dscf/hr);

P = production rate of 100 percent H₂SO₄, metric ton/hr (ton/hr); and

K = conversion factor, 1000 g/kg (1.0 lb/lb).

- ii. [40 CFR 60.85(b)(2)]

Method 8 shall be used to determine the acid mist and SO₂ concentrations (C's) and the volumetric flow rate (Qsd) of the effluent gas. The moisture content may be considered to be zero. The sampling time

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and sample volume for each run shall be at least 60 minutes and 1.15 dscm (40.6 dscf).

iii. [40 CFR 60.85(b)(3)]

Suitable methods shall be used to determine the production rate (P) of 100 percent H₂SO₄ for each run. Material balance over the production system shall be used to confirm the production rate.

iv. [40 CFR 60.85(b)(4)]

Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity.

g. [40 CFR 60.85(c)]

The permittee may use the following as alternatives to the reference methods and procedures specified in 40 CFR 60.85:

i. [40 CFR 60.85(c)(1)]

If the permittee processes elemental sulfur or an ore that contains elemental sulfur and uses air to supply oxygen, the following procedure may be used instead of determining the volumetric flow rate and production rate:

(a) [40 CFR 60.85(c)(1)(i)]

The integrated technique of Method 3, of 40 CFR Part 60, Appendix A is used to determine the O₂ concentration and, if required, CO₂ concentration.

(b) [40 CFR 60.85(c)(1)(ii)]

The SO₂ or acid mist emission rate is calculated as described in 40 CFR 60.84(d), substituting the acid mist concentration for Cs as appropriate.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the TDOES. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the TDOES's refusal to accept the results of the emission test(s).

Personnel from the TDOES shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the TDOES within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the TDOES.

[Authority for term: OAC 3745-77-07(C)(1)]

- (3) The permittee shall comply with the Quality Assurance Requirements of 40 CFR Part 60, Appendix F.
 - a. The permittee shall develop and implement a quality control program as outlined under section 3 of 40 CFR Part 60, Appendix F.
 - b. The permittee shall perform daily calibration drift assessments as required by section 4 of 40 CFR Part 60, Appendix F.
 - c. The SO₂ CERMS shall be audited once per calendar quarter according to section 5 of 40 CFR Part 60, Appendix F. CERMS data accuracy shall be calculated according to section 6 of 40 CFR Part 60, Appendix F.

- (4) 40 CFR 60.8(c)]

Operations during periods of startup, shutdown and malfunction shall not constitute representative conditions for the purpose of a performance test.

[Authority for term: OAC 3745-77-07(C)(1)]

g) **Miscellaneous Requirements**

- (1) The permittee must apply for and obtain a permit to install from the Ohio EPA before increasing production above levels listed in the permit to install application for PTI 04-00923 or before making any further modifications to this emissions unit.



4. P002, B-Plant

Operations, Property and/or Equipment Description: Sulfuric Acid regeneration

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-00923 modified November 20, 2001)	Sulfur dioxide (SO ₂) shall not exceed 59.5 lbs/hr, 1,428 lbs/day, and 261 tons per rolling, 365-day period. Sulfuric acid mist shall not exceed 2.10 lbs/hr and 9.20 tpy. Carbon monoxide (CO) shall not exceed 0.82 lb/hr and 3.59 tpy. Nitrogen oxides (NO _x) shall not exceed 2.42 lbs/hr and 10.6 tpy. See b)(2)a. and b)(2)b.
b.	OAC rule 3745-18-54(X)	See b)(2)a.
c.	40 CFR Part 60, Subpart H	See b)(2)c.
d.	OAC rule 3745-17-07	See b)(2)a.
e.	OAC rule 3745-17-11	See b)(2)d.

(2) Additional Terms and Conditions

a. The emission limitation specified by this rule is less stringent than the emission limitation specified by 40 CFR Part 60, Subpart H.

b. The hourly and annual emission limitations for CO and NO_x are based on the potential to emit for this emissions unit at maximum capacity for 8,760 hours per year; therefore, monitoring, record keeping and reporting are not necessary to demonstrate compliance with these limits.

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- c. [40 CFR 60.8(c), 60.11(c), 60.82, and 60.83]

At all times except for periods of startup, shutdown, and malfunction, the permittee shall not cause to be discharged into the atmosphere any gases which:

- i. contain sulfur dioxide in excess of 2 kg per metric ton of acid produced (4 lb per ton), the production being expressed as 100 percent H₂SO₄;
- ii. contain acid mist, expressed as H₂SO₄, in excess of 0.075 kg per metric ton of acid produced (0.15 lb/ton), the production being expressed as 100 percent H₂SO₄; and
- iii. exhibit 10 percent opacity or greater.

[40 CFR 60.8(c)]

Emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction shall not be considered a violation of the applicable emission limit.

[40 CFR 60.11(d)]

At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any affected emissions unit including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used shall be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

- d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). Particulate emissions from this emissions unit are emitted in the form of sulfuric acid mist.
- e. The following definitions shall apply to the terms and conditions of this emissions unit.
- i. "Startup" means the setting in operation of the unit and associated equipment for any purpose.

Startup of the dry side ends when converters reach and maintain for a period of six continuous hours normal operating temperatures, defined as a minimum of 780°F into the first and third catalyst beds. Startup of the wet side begins when sulfur bearing feeds are introduced to the regen furnace, and ends twelve hours thereafter.

[40 CFR 60.2]

[Authority for term: OAC rule 3745-77-(C)(1)]

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- ii. ["Shutdown" means the cessation of operation of the unit and associated equipment for any purpose.

[40 CFR 60.2]

Shutdown of the dry side begins when sulfur feed is taken off the sulfur furnace and sulfur bearing feeds exclusive of fuel oil are taken off the regen furnace. Shutdown of the wet side begins when sulfur bearing feeds exclusive of fuel oil are taken off the regen furnace and ends six hours thereafter.

[Authority for term: OAC rule 3745-77-(C)(1)]

- iii. "Malfunction" means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused by poor maintenance or careless operation are not malfunctions.

[40 CFR 60.2]

[Authority for term: OAC rule 3745-77-(C)(1)]

- iv. "Dry side" means that portion of the unit that includes all processing equipment beginning with the drying tower and continuing through the stack.

[Authority for term: OAC rule 3745-77-(C)(1)]

- v. "Wet side" means that portion of the unit that includes all processing equipment preceding the drying tower.

[Authority for term: OAC rule 3745-77-(C)(1)]

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) A flow monitor shall be maintained and operated for this emissions unit to allow for monitoring SO₂ emissions in units of pounds per hour, pounds per day, and tons per year. This continuous flow monitoring equipment shall comply with the requirements specified in 40 CFR Part 60.

[Authority for term: OAC 3745-77-07(C)(1)]

- (2) The continuous emission monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

[40 CFR 60.2] and/or [40 CFR 63.2] and [Appendix F to 40 CFR Part 60]

[Authority for term: OAC 3745-77-07(C)(1)]

- (3) [40 CFR 60.84(a)]

The continuous monitoring system shall also include a flow monitor as required by PTI 04-00923. The combination of the SO₂ continuous monitoring system and flow monitor will be identified in this permit as the SO₂ Continuous Emission Rate Monitoring System (CERMS). The CERMS shall monitor SO₂ emissions in units of pounds per ton of 100% acid produced, pounds per hour, pounds per day, and tons per rolling, 365-day period.

[Authority for term: OAC 3745-77-07(C)(1)]

- (4) The permittee shall operate and maintain the SO₂ CERMS to continuously monitor and record SO₂ emissions from this emissions unit in units of the applicable standard(s): pounds per ton of 100% acid produced as a rolling, 3-hour average, pounds per hour as a 3-hour average, pounds per day, and tons per rolling, 365-day period.

The permittee shall maintain records of all data obtained by the SO₂ CERMS including, but not limited to:

- a. emissions of SO₂ in parts per million SO₂ on an instantaneous (1-minute) basis;
- b. emissions of SO₂ in units of the applicable standard in the appropriate averaging period (pounds per ton of 100% acid produced as a rolling 3-hour average, pounds per hour as a 3-hour average, pounds per day, and tons per rolling, 365-day period);
- c. results of quarterly cylinder gas audits;
- d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
- e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);
- f. hours of operation of the emissions unit, continuous SO₂ monitoring system, and control equipment;
- g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous SO₂ monitoring system;
- h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous SO₂ monitoring system; as well as,
- i. the reason (if known) and the corrective actions taken (if any) for each such event in (g) and (h).

[40 CFR 60.13] and [40 CFR Part 60, Appendices B & F]

j. [40 CFR 60.84(a)]

The pollutant gas used to prepare calibration gas mixtures under Performance Specification 2 and for calibration checks under 40 CFR 60.13(d), shall be SO₂. Method 8 shall be used for conducting monitoring system performance evaluations under 40 CFR 60.13(c) except that only the SO₂ portion of the Method 8 results shall be used. The span value shall be set at 1000 ppm of SO₂.

k. [40 CFR 60.84(b)]

The permittee shall establish a conversion factor for the purpose of converting monitoring data into units of pounds per ton. The conversion factor shall be determined, as a minimum, three times daily by measuring the concentration of SO₂ entering the converter using suitable methods (e.g., the Reich test, National Air Pollution Control Administration Publication No. 999-AP-13) and calculating the appropriate conversion factor for each 8-hour period as follows:

$$CF = k[(1.000 - 0.015r)/(r - s)]$$

where:

CF = conversion factor (kg/ton per ppm, lb/ton per ppm);

k = constant derived from material balance (for determining CF in metric units, k = 0.0653, for determining CF in English units, k = 0.1306);

r = percentage of SO₂ by volume entering the gas converter (appropriate corrections must be made for air injection plants subject to the Administrator of U.S. EPA's approval); and

s = percentage of SO₂ by volume in the emissions to the atmosphere determined by the CERMS.

l. [40 CFR 60.84(c)]

The permittee shall record all conversion factors and values under d)(4)k. from which they were computed (i.e., CF, r, and s).

m. [40 CFR 60.84(d)]

Alternatively, a source that processes elemental sulfur or an ore that contains elemental sulfur and uses air to supply oxygen may use the following continuous emission monitoring approach and calculation procedures in determining SO₂ emission rates in terms of the standard. This procedure is not required, but is an alternative that would alleviate problems encountered in the measurement of gas velocities or production rate. Continuous emission monitoring systems for measuring SO₂, O₂, and CO₂ (if required) and flow rate (required by PTI 04-00923) shall be installed, calibrated, maintained, and operated by the permittee and subjected to the certification procedures in Performance Specifications 6. The calibration procedure and span value for the SO₂ monitor shall be as specified in d)(4)j. The span value for CO₂ (if required) shall be 10

percent and for O₂ shall be 20.9 percent (air). A conversion factor based on process rate data is not necessary. Calculate the SO₂ emission rate as follows:

$$Es = (CsS) / [0.265-(0.126\%O_2)-(A \%CO_2)]$$

where:

Es = emission rate of SO₂, kg/metric ton (lb/ton) of 100 percent of H₂SO₄ produced;

Cs = concentration of SO₂, kg/dscm (lb/dscf);

S = acid production rate factor, 368 dscm/metric ton (11,800 dscf/ton) of 100 percent H₂SO₄ produced;

%O₂ = oxygen concentration, percent dry basis;

A = auxiliary fuel factor, as follows;

A = 0.00 for no fuel;

A = 0.0226 for methane;

A = 0.0217 for natural gas;

A = 0.0196 for propane;

A = 0.0172 for No. 2 oil;

A = 0.0161 for No. 6 oil;

A = 0.0148 for coal;

A = 0.0126 for coke; and

%CO₂ = carbon dioxide concentration, percent dry basis.

NOTE: It is necessary in some cases to convert measured concentration units to other units for these calculations:

Use the following table for such conversions:

From	To	Multiply by
g/scm	kg/scm	0.001
mg/scm	kg/scm	0.000001
ppm(SO ₂)	kg/scm	0.00000266
ppm(SO ₂)	lb/scf	0.000000166

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- (5) The permittee shall maintain on-site, the document(s) of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous SO₂ monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 2 and 6. The letter(s)/document(s) of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.

[40 CFR 60.13] and [40 CFR Part 60, Appendix B]

[Authority for term: OAC 3745-77-07(C)(1)]

- (6) The permittee shall maintain a written quality assurance/quality control plan for the continuous SO₂ monitoring system which meets the requirements of 40 CFR Part 60.13 and has been certified by the U.S. EPA or the Ohio EPA, Central Office, designed to ensure continuous valid and representative readings of SO₂ emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous SO₂ monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

[40 CFR 60.13] and [40 CFR Part 60, Appendix F]

[Authority for term: OAC 3745-77-07(C)(1)]

- (7) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. the color of the emissions;
- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emission incident; and
- e. any corrective actions taken to eliminate the visible emissions.

[Authority for term: OAC 3745-77-07(C)(1)]

(8) [40 CFR 60.7(b)]

The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the affected emissions unit, any malfunction of the air pollution control equipment, or any periods during which a continuous monitoring system or monitoring device is inoperative.

[Authority for term: OAC 3745-77-07(C)]

e) Reporting Requirements

(1) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous SO₂ monitoring system:

- a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR Parts 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of SO₂ emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapter 3745-18, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).
- b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:
 - i. the facility name and address;
 - ii. the manufacturer and model number of the continuous SO₂ and other associated monitors;
 - iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;
 - iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;
 - v. the total SO₂ emissions for the calendar quarter (tons);
 - vi. the total operating time (hours) of the emissions unit;
 - vii. the total operating time of the continuous SO₂ monitoring system while the emissions unit was in operation;
 - viii. results and dates of quarterly cylinder gas audits;

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- ix. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));
- x. unless previously submitted, the results of any relative accuracy test audit showing the continuous SO₂ monitor out-of-control and the compliant results following any corrective actions;
- xi. the date, time, and duration of any/each malfunction** of the continuous SO₂ monitoring system, emissions unit, and/or control equipment;
- xii. the date, time, and duration of any downtime** of the continuous SO₂ monitoring system and/or control equipment while the emissions unit was in operation; and
- xiii. the reason (if known) and the corrective actions taken (if any) for each event in (b)(xi) and (xii).

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

** each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit

[40 CFR 60.7]

[Authority for term: OAC 3745-77-07(C)(1)]

- (2) The permittee shall submit quarterly Data Assessment Reports to the TDOES containing the information outlined in section 7 of 40 CFR Part 60, Appendix F. These reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.

[Authority for term: OAC 3745-77-07(C)(1)]

- (3) The permittee shall submit quarterly written reports that:
 - a. identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
 - b. describe any corrective actions taken to eliminate the visible particulate emissions.

These reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.

[Authority for term: OAC 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods: Miscellaneous Requirements

a. Emission Limitation:

59.5 lbs/hr of SO₂

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring and record keeping requirements specified in d). Performance testing on September 4, 2008 using Methods 1 through 4 and 8 of 40 CFR Part 60, Appendix A resulted in an emission rate of 56.29 lbs/hr of SO₂. If required, compliance shall be demonstrated by Methods 1 through 4 and Method 8 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

[Authority for term: OAC 3745-77-07(C)(1)]

b. Emission Limitation:

1,428 lbs/day of SO₂

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring and record keeping requirements specified in d).

[Authority for term: OAC 3745-77-07(C)(1)]

c. Emission Limitation:

261 tons of SO₂ per rolling, 365-day period

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring and record keeping requirements specified in d).

[Authority for term: OAC 3745-77-07(C)(1)]

d. Emission Limitation:

2.10 lbs/hr of sulfuric acid mist

Applicable Compliance Method:

Performance testing on September 4, 2008 using Methods 1 through 4 and Method 8 of 40 CFR Part 60, Appendix A resulted in emissions of 1.22 lbs/hr of sulfuric acid mist. If required, compliance shall be demonstrated by Methods 1

through 4 and Method 8 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

[Authority for term: OAC 3745-77-07(C)(1)]

e. Emission Limitation:

9.20 tpy of sulfuric acid mist

Applicable Compliance Method:

The annual sulfuric acid mist emission limitation was developed by multiplying the hourly allowable emission limitation of 2.10 lbs/hr by a maximum operating schedule of 8760 hours/year, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

[Authority for term: OAC 3745-77-07(C)(1)]

f. Emission Limitation:

4 pounds of SO₂ per ton of 100% sulfuric acid produced

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing methods and procedures specified in f).

[Authority for term: OAC 3745-77-07(C)(1)]

g. Emission Limitation:

0.82 lb/hr of CO

Applicable Compliance Method:

If required, compliance shall be demonstrated by Methods 1 through 4 and Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

[Authority for term: OAC 3745-77-07(C)(1)]

h. Emission Limitation:

3.59 tpy of CO

Applicable Compliance Method:

The annual CO emission limitation was developed by multiplying the hourly allowable emission limitation of 0.82 lb/hr by a maximum operating schedule of 8760 hours/year, and then dividing by 2000 lbs/ton. Therefore, provided

compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

[Authority for term: OAC 3745-77-07(C)(1)]

i. Emission Limitation:

2.42 lbs/hr of NO_x

Applicable Compliance Method:

If required, compliance shall be demonstrated by Methods 1 through 4 and Method 7 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

[Authority for term: OAC 3745-77-07(C)(1)]

j. Emission Limitation :

10.6 tpy of NO_x

Applicable Compliance Method:

The annual NO_x emission limitation was developed by multiplying the hourly allowable emission limitation of 2.42 lbs/hr by a maximum operating schedule of 8760 hours/year, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

[Authority for term: OAC 3745-77-07(C)(1)]

k. Emission Limitation:

0.075 kg per metric ton of 100 percent sulfuric acid produced (0.15 lb per ton)

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing methods and procedures specified in f).

[Authority for term: OAC 3745-77-07(C)(1)]

l. Emission Limitation:

10 percent opacity

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing methods and procedures specified in f) and the procedures of 40 CFR 60.11.

[Authority for term: OAC 3745-77-07(C)(1)]

- (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted approximately 2.5 years after permit issuance and within 6 months prior to permit expiration.
 - b. The emission testing shall be conducted to demonstrate compliance with the opacity restriction, and the allowable hourly and pound per ton mass emission rates for SO₂ and sulfuric acid mist.
 - c. The following test methods shall be employed to demonstrate compliance with the allowable emission rates: for opacity, Method 9 of 40 CFR Part 60, Appendix A; and for SO₂ and sulfuric acid mist, Methods 1 through 4 and Method 8 and the procedures identified under 40 CFR 60.85 as specified below. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the TDOES.
 - e. [40 CFR 60.85(a)]

In conducting the performance tests required in 40 CFR 60.8, the permittee shall use as reference methods and procedures the test methods in Appendix A of 40 CFR Part 60 or other methods and procedures as specified in 40 CFR 60.85, except as provided in 40 CFR 60.8(b). Acceptable alternative methods and procedures are given in g.

- f. [40 CFR 60.85(b)]

The permittee shall determine compliance with the SO₂, acid mist, and visible emission standards in 40 CFR 40 CFR 60.82 and 60.83 as follows:

- i. [40 CFR 60.85(b)(1)]

The emission rate (E) of acid mist or SO₂ shall be computed for each run using the following equation:

$$E = (CQsd) / (PK)$$

where:

E = emission rate of acid mist or SO₂ kg/metric ton (lb/ton) of 100 percent H₂SO₄ produced;

C = concentration of acid mist or SO₂, g/dscm (lb/dscf);

Qsd = volumetric flow rate of the effluent gas, dscm/hr (dscf/hr);

P = production rate of 100 percent H₂SO₄, metric ton/hr (ton/hr); and

K = conversion factor, 1000 g/kg (1.0 lb/lb).

ii. [40 CFR 60.85(b)(2)]

Method 8 shall be used to determine the acid mist and SO₂ concentrations (C's) and the volumetric flow rate (Qsd) of the effluent gas. The moisture content may be considered to be zero. The sampling time and sample volume for each run shall be at least 60 minutes and 1.15 dscm (40.6 dscf).

iii. [40 CFR 60.85(b)(3)]

Suitable methods shall be used to determine the production rate (P) of 100 percent H₂SO₄ for each run. Material balance over the production system shall be used to confirm the production rate.

iv. [40 CFR 60.85(b)(4)]

Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity.

g. [40 CFR 60.85(c)]

The permittee may use the following as alternatives to the reference methods and procedures specified in 40 CFR 60.85:

i. [40 CFR 60.85(c)(1)]

If the permittee processes elemental sulfur or an ore that contains elemental sulfur and uses air to supply oxygen, the following procedure may be used instead of determining the volumetric flow rate and production rate:

(a) [40 CFR 60.85(c)(1)(i)]

The integrated technique of Method 3, of 40 CFR Part 60, Appendix A is used to determine the O₂ concentration and, if required, CO₂ concentration.

(b) [40 CFR 60.85(c)(1)(ii)]

The SO₂ or acid mist emission rate is calculated as described in 40 CFR 60.84(d), substituting the acid mist concentration for Cs as appropriate.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the TDOES. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the TDOES's refusal to accept the results of the emission test(s).

Effective Date: To be entered upon final issuance

Personnel from the TDOES shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the TDOES within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the TDOES.

[Authority for term: OAC 3745-77-07(C)(1)]

- (3) The permittee shall comply with the Quality Assurance Requirements of 40 CFR Part 60, Appendix F.
- a. The permittee shall develop and implement a quality control program as outlined under section 3 of 40 CFR Part 60, Appendix F.
 - b. The permittee shall perform daily calibration drift assessments as required by section 4 of 40 CFR Part 60, Appendix F.
 - c. The SO₂ CERMS shall be audited once per calendar quarter according to section 5 of 40 CFR Part 60, Appendix F. CERMS data accuracy shall be calculated according to section 6 of 40 CFR Part 60, Appendix F.

[Authority for term: OAC 3745-77-07(C)(1)]

- (4) 40 CFR 60.8(c)]

Operations during periods of startup, shutdown and malfunction shall not constitute representative conditions for the purpose of a performance test.

[Authority for term: OAC 3745-77-07(C)(1)]

g) **Miscellaneous Requirements**

- (1) The permittee must apply for and obtain a permit to install from the Ohio EPA before increasing production above levels listed in the permit to install application for PTI 04-00923 or before making any further modifications to this emissions unit.